

Podoplanin Protein, Mouse, Recombinant (hFc)

General Information

Synonyms:	T1-alpha;PA2.26 antigen;T1A;Podoplanin;T1- α ;Glycoprotein 38;Aggrus;Gp38
Protein Construction:	Gly23-Lys133
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q62011
Molecular Weight:	55-70 KDa (reducing condition)
AA Sequence:	Gly23-Lys133

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 90% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/ μ g (1 EU/ μ g) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μ m filter, containing PBS, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μ g/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Podoplanin belongs to the podoplanin family, also known as Glycoprotein 38. Podoplanin is synthesized as a 172 amino acid (aa) precursor with a 22 aa signal sequence, a 119 aa extracellular domain (ECD), a 21 aa transmembrane region, and a short, 10 aa cytoplasmic tail. Detected at high levels in lung and brain, at lower levels in kidney, stomach, liver, spleen and esophagus, and not detected in skin and small intestine. Expressed in epithelial cells of choroid plexus, ependyma, glomerulus and alveolus, in mesothelial cells and in endothelia of

lymphatic vessels. Also expressed in stromal cells of peripheral lymphoid tissue and thymic epithelial cells. Detected in carcinoma cell lines and cultured fibroblasts. Expressed at higher levels in colon carcinomas than in normal colon tissue. It can interact with CLEC1B; the interaction is independent of CLEC1B glycosylation and activates CLEC1B. It may be involved in cell migration and/or actin cytoskeleton organization. When expressed in keratinocytes, induces changes in cell morphology with transfected cells showing an elongated shape, numerous membrane protrusions, major reorganization of the actin cytoskeleton, increased motility and decreased cell adhesion. Required for normal lung cell proliferation and alveolus formation at birth. Ligand for CLEC1B, a platelet receptor. Induces platelet aggregation. Does not have any effect on folic acid or amino acid transport. Does not function as a water channel or as a regulator of aquaporin-type water channels.

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